

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Mie TAKAHASHI et al. : Attn: BOX PCT  
Serial No. NEW : Docket No. 2001\_1464A  
Filed September 28, 2001 :

CHROMATOGRAPHY SPECIMEN AND  
ITS MANUFACTURING METHOD  
[Corresponding to PCT/JP01/00784  
Filed February 5, 2001]

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents,  
Washington, DC 20231

Sir:

Please amend the above-identified application as follows:

IN THE SPECIFICATION

Page 1, after the title of the invention, please insert:

This application is a 371 application of PCT/JP01/00784 filed February 5, 2001.

Please replace the paragraph on page 8, lines 4-10 with the following rewritten paragraph:

Therefore, in addition to the effect according to Claim 1, it can be prevented that the permeation speed of a liquid sample in the reactive layer is too high to obtain a sufficient reaction, and further by selecting the HLB value to control the reaction speed appropriately, a chromatography measurement with a higher sensitivity and a higher performance can be realized.

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**Please replace the paragraph from page 31, line 14 to page 32, line 6 with the following rewritten paragraph:**

A chromatography specimen 30 has a sample application part 11, a reactive reagent impregnation region 17, a reactive layer 14, a surface active processing part 8, an enzyme immobilization part 7, and a water-absorbing part 15. The reactive reagent impregnation region 17 holds a reactive reagent on a nonwoven fabric or the like so that it can be dissolved by a liquid sample applied to the sample application part 11. The enzyme immobilization region 7 is obtained by immobilization and holding an enzyme that processes a binding reaction with an analysis target on the area of the reactive layer 14 according to the reaction format. The sample application part 11, the reactive layer 14, the surface active processing part 8 and the water-absorbing part 8 in the chromatography specimen 30, except for the enzyme immobilization part 7 and the reactive reagent impregnation region 17, are the same as those of the aforementioned flow through-type chromatography specimen 20, and thus their description will be omitted.

**IN THE CLAIMS**

Please amend claims 3-7 and 10-17 as follows:

3. (Amended) The chromatography specimen as defined in Claim 1,  
wherein the surface active agent comprises a nonionic surface active agent.
4. (Amended) The chromatography specimen as defined in Claim 1,  
wherein the surface active agent comprises a cholic acid surface active agent.
5. (Amended) The chromatography specimen as defined in Claim 1,  
wherein the surface active agent comprises a surface active agent having sugar in a hydrophilic  
part.
6. (Amended) The chromatography specimen as defined in Claim 1,

wherein the reactive layer includes the surface active agent in the entirety thereof.

7. (Amended) The chromatography specimen as defined of Claim 1,  
wherein the reactive layer includes the surface active agent in a part thereof.

10. (Amended) The chromatography specimen manufacturing method as defined in Claim  
8,  
wherein the surface active agent comprises a nonionic surface active agent.

11. (Amended) The chromatography specimen manufacturing method as defined in Claim 8,  
wherein the surface active agent comprises a cholic acid surface active agent.

12. (Amended) The chromatography specimen manufacturing method as defined in Claim 8,  
wherein the surface active agent comprises a surface active agent having sugar in a hydrophilic  
part.

13. (Amended) The chromatography specimen manufacturing method as defined in Claim 8,  
wherein the reactive layer is dried by air drying.

14. (Amended) The chromatography specimen manufacturing method as defined in Claim 8,  
wherein the reactive layer is dried by wind drying.

15. (Amended) The chromatography specimen manufacturing method as defined in Claim 8,  
wherein the reactive layer is dried by freeze drying.

16. (Amended) The chromatography specimen manufacturing method as defined in Claim 8,  
wherein the entire reactive layer is impregnated or coated with the surface active agent  
dissolved liquid.

17. (Amended) The chromatography specimen manufacturing method as defined in Claim 8, wherein a part of the reactive layer is impregnated or coated with the surface active agent dissolved liquid.

Please add new claims 18-63 as follows:

18. (New) The chromatography specimen as defined in Claim 2, wherein the surface active agent comprises a nonionic surface active agent.

19. (New) The chromatography specimen as defined in Claim 2, wherein the surface active agent comprises a cholic acid surface active agent.

20. (New) The chromatography specimen as defined in Claim 3, wherein the surface active agent comprises a cholic acid surface active agent.

21. (New) The chromatography specimen as defined in Claim 2, wherein the surface active agent comprises a surface active agent having sugar in a hydrophilic part.

22. (New) The chromatography specimen as defined in Claim 3, wherein the surface active agent comprises a surface active agent having sugar in a hydrophilic part.

23. (New) The chromatography specimen as defined in Claim 4, wherein the surface active agent comprises a surface active agent having sugar in a hydrophilic part.

24. (New) The chromatography specimen as defined in Claim 2,

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wherein the reactive layer includes the surface active agent in the entirety thereof.

25. (New) The chromatography specimen as defined in Claim 3,  
wherein the reactive layer includes the surface active agent in the entirety thereof.

26. (New) The chromatography specimen as defined in Claim 4,  
wherein the reactive layer includes the surface active agent in the entirety thereof.

27. (New) The chromatography specimen as defined in Claim 5,  
wherein the reactive layer includes the surface active agent in the entirety thereof.

28. (New) The chromatography specimen as defined of Claim 2,  
wherein the reactive layer includes the surface active agent in a part thereof.

29. (New) The chromatography specimen as defined of Claim 3,  
wherein the reactive layer includes the surface active agent in a part thereof.

30. (New) The chromatography specimen as defined of Claim 4,  
wherein the reactive layer includes the surface active agent in a part thereof.

31. (New) The chromatography specimen as defined of Claim 5,  
wherein the reactive layer includes the surface active agent in a part thereof.

32. (New) The chromatography specimen manufacturing method as defined in Claim 9,  
wherein the surface active agent comprises a nonionic surface active agent.

33. (New) The chromatography specimen manufacturing method as defined in Claim 9,  
wherein the surface active agent comprises a cholic acid surface active agent.

34. (New) The chromatography specimen manufacturing method as defined in Claim 10, wherein the surface active agent comprises a cholic acid surface active agent.

35. (New) The chromatography specimen manufacturing method as defined in Claim 9, wherein the surface active agent comprises a surface active agent having sugar in a hydrophilic part.

36. (New) The chromatography specimen manufacturing method as defined in Claim 10, wherein the surface active agent comprises a surface active agent having sugar in a hydrophilic part.

37. (New) The chromatography specimen manufacturing method as defined in Claim 11, wherein the surface active agent comprises a surface active agent having sugar in a hydrophilic part.

38. (New) The chromatography specimen manufacturing method as defined in Claim 9, wherein the reactive layer is dried by air drying.

39. (New) The chromatography specimen manufacturing method as defined in Claim 10, wherein the reactive layer is dried by air drying.

40. (New) The chromatography specimen manufacturing method as defined in Claim 11, wherein the reactive layer is dried by air drying.

41. (New) The chromatography specimen manufacturing method as defined in Claim 12, wherein the reactive layer is dried by air drying.

42. (New) The chromatography specimen manufacturing method as defined in Claim 9,

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wherein the entire reactive layer is impregnated or coated with the surface active agent dissolved liquid.

52. (New) The chromatography specimen manufacturing method as defined in Claim 11, wherein the entire reactive layer is impregnated or coated with the surface active agent dissolved liquid.

53. (New) The chromatography specimen manufacturing method as defined in Claim 12, wherein the entire reactive layer is impregnated or coated with the surface active agent dissolved liquid.

54. (New) The chromatography specimen manufacturing method as defined in Claim 13, wherein the entire reactive layer is impregnated or coated with the surface active agent dissolved liquid.

55. (New) The chromatography specimen manufacturing method as defined in Claim 14, wherein the entire reactive layer is impregnated or coated with the surface active agent dissolved liquid.

56. (New) The chromatography specimen manufacturing method as defined in Claim 15, wherein the entire reactive layer is impregnated or coated with the surface active agent dissolved liquid.

57. (New) The chromatography specimen manufacturing method as defined in Claim 9, wherein a part of the reactive layer is impregnated or coated with the surface active agent dissolved liquid.

58. (New) The chromatography specimen manufacturing method as defined in Claim 10,



wherein a part of the reactive layer is impregnated or coated with the surface active agent dissolved liquid.

59. (New) The chromatography specimen manufacturing method as defined in Claim 11, wherein a part of the reactive layer is impregnated or coated with the surface active agent dissolved liquid.

60. (New) The chromatography specimen manufacturing method as defined in Claim 12, wherein a part of the reactive layer is impregnated or coated with the surface active agent dissolved liquid.

61. (New) The chromatography specimen manufacturing method as defined in Claim 13, wherein a part of the reactive layer is impregnated or coated with the surface active agent dissolved liquid.

62. (New) The chromatography specimen manufacturing method as defined in Claim 14, wherein a part of the reactive layer is impregnated or coated with the surface active agent dissolved liquid.

63. (New) The chromatography specimen manufacturing method as defined in Claim 15, wherein a part of the reactive layer is impregnated or coated with the surface active agent dissolved liquid.

### REMARKS

The specification has been amended to insert a cross-reference to the international application.

The disclosure on pages 8 and 31 has been amended to make minor changes, which are essentially self-explanatory.

The claims have been amended to avoid their improper multiple dependency, and also to avoid the multiple dependent claim fee, as a result of which new claims 18-63, corresponding to the amended claims, have been added to the application.

Attached hereto is a marked-up version of the changes made to the Specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Respectfully submitted,

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